

# Laucks

## Testing Laboratories, Inc.

940 South Harney St., Seattle, Washington 98108 (206) 767-5060 FAX 767-5063



### Invoice

Chemistry, Microbiology, and Technical Services

Alaskan Copper Works  
ATTN: Jim Brown  
P.O. Box 3546  
Seattle, WA 98124

INVOICE NO. 11207

DATE: Aug. 17, 1988

PO #M6677

For analysis of WATER:

8 samples @ 44.00 -

\$352.00

#### Net 30 Days

The sole liability of these laboratories for these services, including claims for negligence, strict liability in tort or warranty, shall not exceed the amount of this invoice. Samples may be discarded after analysis unless otherwise requested.

Fed. Empl. ID No. 91-0580763



AKC-0015347



## Testing Laboratories, Inc.

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## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124  
ATTN: Jim Brown

LABORATORY NO. 11207

DATE: Aug. 17, 1988

PO #M6677

REPORT ON: WATER

### SAMPLE

IDENTIFICATION: Submitted 8/1/88 and identified as shown:

- 1) #7-5-3200-M6677
- 2) #7-7-3200-M6677
- 3) #7-12-3200-M6677
- 4) #7-14-3200-M6677
- 5) #7-19-3200-M6677
- 6) #7-21-3200-M6677
- 7) #7-26-3200-M6677
- 8) #7-28-3200-M6677

	<u>parts per million (mg/L)</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Chromium	0.43	0.76	0.71	0.58	1.2
Copper	0.12	0.27	0.34	0.15	0.37
Nickel	0.27	0.47	0.46	0.39	0.73
Zinc	0.06	0.063	0.078	0.043	0.087



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LABORATORY NO. 11207

parts per million (mg/L)


	<u>6</u>	<u>7</u>	<u>8</u>	<u>Lab Blank</u>
Chromium	0.61	0.62	0.80	<0.002
Copper	0.15	0.21	0.13	<0.002
Nickel	0.44	0.42	0.47	<0.01
Zinc	0.035	0.055	0.032	<0.002

Key

< = less than

Respectfully submitted,

Laucks Testing Laboratories, Inc.

  
G. M. Owens

JMO:veg



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### APPENDIX

#### Matrix Spike/Matrix Spike Duplicate Report

Sample	Analyte	parts per million (mg/L)				mg/L				QC LIMITS	
		Spike Level	Sample Result	MS Result	% Rec	MSD Result	% Rec	RPD	RPD	REC	
1	Chromium	0.050	0.43	0.47	80.	0.46	60.	29.	*		
1	Zinc	0.050	0.036	0.072	72.	0.074	76.	5.	6		64-127
1	Copper	0.050	0.12	0.17	84.	0.17	84.	0.	7		65-122
1	Nickel	0.100	0.27	0.34	74.	0.35	78.	5.	5		66-125

\* Samples are spiked prior to preparation and analysis at a level deemed to be generally appropriate to the average sample processed in the laboratory. In this case, the level of analyte already present in the sample was large enough to make an accurate determination of spike recovery impossible.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

Rec = Recovery

RPD = Relative Percent Difference



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